

CLAIMS

1. A transgenic grass plant whose color phenotype is differed from the color phenotype of the corresponding non-transgenic grass plant species from which the transgenic grass plant was derived, the transgenic grass plant comprising a transgene comprising:

- a) an exogenous anthocyanin regulatory gene; and
- b) a promoter for regulating transcription of said anthocyanin regulatory gene, said promoter being operably linked to said anthocyanin regulatory gene.

2. The transgenic grass plant of claim 1 wherein the promoter is a constitutive promoter.

3. The transgenic grass plant of claim 1 wherein the promote is selected from the group consisting of the 35S cauliflower mosaic virus promoter, the nopaline synthase promoter, and the octopine synthase promoter.

4. The transgenic grass plant of claim 1 wherein the promoter is a stress inducible promoter.

5. The transgenic grass plant of claim 4 wherein the stress inducible promoter is responsive to lack of fertilizer, lack of water, or infection with a pathogen.

6. The transgenic grass plant of claim 1 wherein the promoter is selected from the group consisting of the maize rab28 gene promoter, the maize rab17 gene promoter, the maize Ivr2 gene promoter, and the hydroxyproline-rich glycoprotein gene promoter.

7. The transgenic grass plant of claim 1 wherein the promoter is a chemical inducible promoter.

8. The transgenic grass plant of claim 1 wherein the chemical inducible promoter is responsive to a steroid or estradiol.

9. The transgenic grass plant of claim 1 wherein the grass is a turfgrass.

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10. The transgenic grass plant of claim 1 wherein the turfgrass is selected from the group consisting of Tall fescue, Kentucky bluegrass, Perennial ryegrass, Creeping bentgrass, Bermuda grass, and Zoysia grass.

10 11. The transgenic grass plant of claim 1 wherein the anthocyanin regulatory gene is selected from the group consisting of a maize C1 gene, a maize R gene, a combination of a maize C1 gene and a maize R gene, and a chimeric maize C1/R gene.

12. A nucleic acid construct comprising:

15 a) an anthocyanin regulatory gene selected from the group consisting of a C1 gene, an R gene, a combinations of a C1 gene and an R gene, and a chimeric C1/R gene; and

20 b) a stress inducible promoter operably linked to the anthocyanin regulatory gene, wherein the stress inducible promoter is responsive to lack of fertilizer, lack of water, or infection with a pathogen.

25 13. The nucleic acid construct of claim 12, wherein the inducible promoter is selected from the group consisting of the maize rab28 gene promoter, the maize rab17 gene promoter, the maize Ivr2 gene promoter, the hydroxyproline-rich glycoprotein gene promoter, and combinations thereof.

14. The nucleic acid construct of claim 12, further comprising a sequence selected from the group consisting of a leader sequence, intron sequence, transcription terminator, polyadenylation site, and combinations thereof.

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15. The nucleic acid construct of claim 12, further comprising a marker gene sequence, a selectable gene sequence, T-DNA sequence, or combinations thereof.

16. A method for making a transgenic grass plant which exhibits a color different from the color exhibited by the corresponding non-transgenic grass plants, comprising:

a) introducing a nucleic acid construct into a plant cell or protoplast, said construct comprising

i.) an exogenous anthocyanin regulatory gene; and

ii.) a promoter for regulating transcription of said anthocyanin regulatory gene, said promoter being operably linked to said anthocyanin regulatory gene.

b) using the plant cells or protoplasts containing said nucleic acid construct to generate transgenic grass plants.

17. The method of claim 16 wherein the nucleic acid construct is introduced into plant cells using a method selected from the group consisting of microprojectile bombardment, electroporation, microinjection, induced uptake, aerosol beam injection, direct DNA uptake, liposomes, *Agrobacterium*-mediated transformation, and combinations thereof.

18. The method of claim 16 wherein the plant cell used for introduction of the nucleic acid construct is from a grass plant selected from the group consisting of Tall fescue, Kentucky bluegrass, Perennial ryegrass, Creeping bentgrass, Bermuda grass and Zoysia grass.

19. The method of claim 16 wherein the promoter is selected from the group consisting of a stress inducible promoter, a chemical inducible promoter, and a constitutive promoter.

20. A seed of any generation of the transgenic grass plant of claim 1, wherein said seed comprises a transgene comprising:

- a) an exogenous anthocyanin regulatory gene; and
- b) a promoter for regulating transcription of said anthocyanin regulatory gene, said promoter being operably linked to said anthocyanin regulatory gene.